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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|-----------------------|---------------------|------------------|
| 10/631,944 | 07/31/2003 | Corey Howard Metcalfe | 029260.006 | 1750 |
| 25461 | 7590 | 06/16/2004 | EXAMINER | |
| SMITH, GAMBRELL & RUSSELL, LLP SUITE 3100, PROMENADE II 1230 PEACHTREE STREET, N.E. ATLANTA, GA 30309-3592 | | | ASHBURN, STEVEN L | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3714 | |

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/631,944

Applicant(s)

METCALFE ET AL.

Examiner

Steven Ashburn

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-16 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8-12 is/are rejected.
- 7) ☒ Claim(s) 4-7 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 15-17 are objected to because they are misnumbered. In numbering the claims, the applicant appears to have mistakenly skipped number 14. Thus, claims 15-17 should be renumbered 14-16 respectively. Correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Schumann, U.S. 6,146,141 (Nov. 14, 2000).

Schumann discloses a simulated pistol wherein a compressed air cylinder causes the pistol carriage to recoil. *See abstract*. The cylinder is controlled by a changeover valve which is actuated by a control element coupled with the trigger. *See id.* The changeover valve causes a compressed air loader to connect with the cylinder. *See id.* As discussed below, Schumann teaches every feature of listed claims.

Claims 1 and 9. Schumann discloses an isolated weapon simulator having a bolt providing recoil for a user comprising:

- a. A housing including a piston chamber and a piston (30) in the chamber wherein the piston connects to the bolt (33). *See fig. 1.*
- b. A regulated gas supply (45) detachably attached to the housing. *See fig. 1.* The gas supply is regulated by valve (24).

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c. A valve chamber (25) in the housing connecting the regulated gas supply and the bolt.

See fig. 1.

d. A recoil valve (24) positioned in the valve chamber (25), said recoil valve positioned to control the release of gas from the regulated supply to the piston chamber. *See fig. 1.*

Claims 2 and 10. Schumann discloses a recoil cylinder port (31) connecting the piston chamber (29) and the valve chamber (25) wherein the recoil valve controls the release of gas through the recoil cylinder port. *See fig. 1, col. 3:45-55.*

Claim 8. Schumann describes an exhaust port traversing the housing from the valve chamber. *See fig. 1(25).*

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schumann in view of Yarborough, Jr., U.S. 4,380,437 (Apr. 19, 1983).

Claims 3 and 11. Schumann discloses a recoil valve, however it does not describe the valve's internal details. In particular, it does not disclose a spring positioned in the valve chamber applying force to the end of the recoil valve. Regardless, as discussed below, this feature would have been obvious to an artisan in view of the prior art. Yarborough discloses an analogous device having a pneumatic valve controlling recoil simulator wherein the a spring positioned in the valve chamber applying force to the

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end of the recoil valve. *See fig. 4; col. 3:37-49.* As described by Yarborough, it would have been obvious to an artisan at the time of the invention to modify the recoil valve discloses by Schumann to add the feature of a spring positioned in the valve chamber applying force to the end of the recoil valve in order to reset the valve to its original position after the trigger is released in preparation for the next trigger pull.

Claim 12. Yarborough discloses a first gate, second gate and third gate; and a distal valve cavity defined between the first gate and the second gate wherein the central valve cavity is central valve cavity is defined between the second gate and the third gate. *See id.*

Allowable Subject Matter

Claim 14-16 are allowed. Claims 4-7 and 13 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter:

Claims 4 and 14. The prior art does not teach or suggest a simulated gun device that simulates recoil using a regulated gas supply for moving a piston wherein a first "pilot" valve conveys the gas to the distal end of a second "recoil" valve to displace the recoil valve in the valve chamber.

Claims 5-7, 13, 15 and 16 inherit allowability from claims 4 and ¹⁴~~13~~.

Prior Art, Not Relied On

The following prior art of record is not relied upon but is considered pertinent to applicant's disclosure:

- a. US 4,812,122 discloses a recoil simulator for an artillery gun employing variable valves.
- b. US 6,509,896 discloses a recoil simulator for an artillery gun employing variable valves.

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- c. DE 3631262 discloses recoil simulator for a handgun having a detachable gas chamber.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Ashburn whose telephone number is 703 305 3543. The examiner can normally be reached on Monday thru Friday, 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, Primary Examiner Jessica Harrison can be reached at 703-308-2217. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

s.a.


MARK SAGER
PRIMARY EXAMINER

